

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Design Specialties, Inc.

#### Wisconsin Manufacturing Extension Partnership

#### Design Specialties Wins With Innovative Partnerships

##### Client Profile:

Design Specialties, Inc., located in Milwaukee, Wisconsin, is a manufacturer of custom, high quality glass fireplace doors. Their products are sold through dealers throughout the U.S. Design Specialties was founded in 1983 and employs 25 people.

##### Situation:

Design Specialties maintained a substantial inventory of parts in order to meet demand from dealers and ensure they had a cushion when parts were late or did not meet specification. Employees of the company had been firm believers in Lean since 2005. Each major manufactured component had been the subject of a Value Stream Map (VSM) analysis to remove waste and time from every aspect of the manufacturing process, and had gone as far as possible to increase efficiency internally. The next logical step was to look outside its walls at the operational performance of its suppliers. "Our VSM's showed us we had a problem with the quality and on-time delivery rates of parts provided by our suppliers," said owner Pat Gengler. "In order to improve this metric, we needed to help our suppliers improve." The company contacted the Wisconsin Manufacturing Extension Partnership (WMEP), a NIST MEP network affiliate, for help.

##### Solution:

With assistance from WMEP, Design Specialties focused their quality improvement efforts on suppliers in order to eliminate the need to maintain large inventories. To carry out this task, the company encouraged suppliers to adopt Lean techniques, such as VSM; made alterations in their production process; and developed open, on-going communication to track and follow changes in the supplier process. The first step to improvement is to understand the present state. Gengler invited each supplier to Design Specialties' plant to review the VSMs and learn more about how their product fit into the overall process. The suppliers also were able to physically see how their part was used in fireplace door manufacturing in order to gain a full understanding of how everything worked together. Then, in collaboration with Design Specialties, each supplier developed plans for a future state in which all parts met specifications and were delivered on-time. This collaboration resulted in improvements to both Design Specialties' processes and the suppliers' processes. "Communication with our suppliers was greatly enhanced by this approach," said Gengler. "We were able to leverage open communication to build strong supplier relationships that allowed us to continually improve speed, quality and flexibility – critical factors in a seasonal business like ours." Jim Fackelman, one of WMEP's VSM experts working with the company said, "The employees of Design Specialties quickly learned how to apply Lean tools to other areas of the operation to replicate efficiency gains throughout the plant. They also learned the importance of forging deeper relationships with their suppliers to improve quality and performance. The results are shorter lead times, better on-time deliveries, reduced inventories and enhanced customer service. "The focus on innovation at Design Specialties goes far beyond the company's manufacturing processes," said Fackelman. For example, the company

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developed a method to staff the plant with solid, reliable employees despite the seasonal fluctuations in work demand. By collaborating with another area manufacturer of seasonal products, Design Specialties is able to hire the best employees as they are released from the other business from year to year. "Most seasonal businesses face a challenge recruiting and training employees," Gengler said. "This collaborative effort has allowed us to get top-notch, proven performers coming back year after year."

Design Specialties demonstrates how original thinking and innovative partnerships can result in real impact and competitive advantage. By reaching outside of the company, Design Specialties accessed new capabilities and competencies they did not have internally to gain control of quality and turn-around. By working in partnership with suppliers, the company substantially raised the throughput of its value chain. As a result, Design Specialties is better positioned to respond to new opportunities in the marketplace and fluctuations in seasonal demand. Design Specialties leveraged its strong financial position to build a new, larger facility and purchase new equipment, further streamlining the operation.

#### **Results:**

\* Reduced inventory from \$660,000 to \$140,000.

#### **Testimonial:**

"We strengthened our financial position as a result of Lean and VSM provided by WMEP. Instead of going to the bank as a borrower, we worked with them as an investor. We leveraged our strong financial position to build a new, larger facility and purchase new equipment, further streamlining the operation."

Pat Gengler, Owner